

ABSTRACT OF THE DISCLOSURE

To obtain a superconducting driver circuit which can obtain an output voltage of several millivolts or above, can use a DC power source as a driving power source, can form no capacitance between it and a ground plane, and has a small occupation area, the superconducting driver circuit is constructed by superconducting flux quantum interference devices (SQUIDs) each constructing a closed loop having as components two superconducting junctions and an inductor. The SQUIDs share the inductors and are connected in series in three or more stages.